



Facial Recognition

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Business Problem

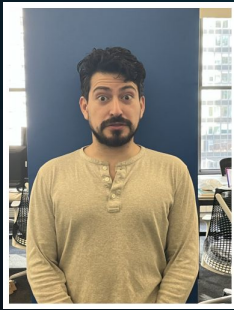
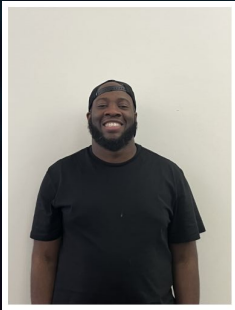
This project addresses the escalating demand for sophisticated and precise facial recognition systems across diverse domains.

- Security
- **Attendance Management**
- User authentication

Data Collection

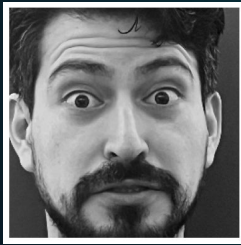
The **dataset** is comprised of images of my classmates, ensuring diversity in facial expressions and angles.

There are 30 images of each person, the typical amount of data you need in a recognition task.

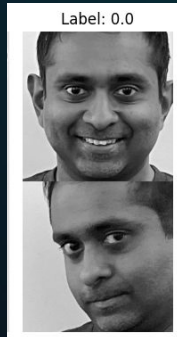
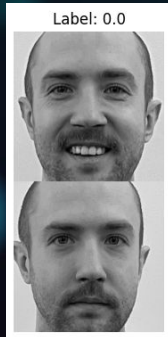


Data Preprocessing

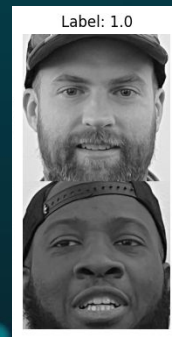
To prepare the dataset for training, a comprehensive data preprocessing pipeline was employed.



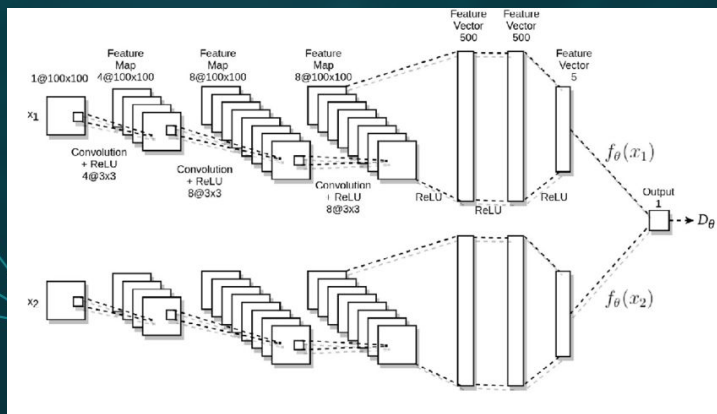
Positive Pairs



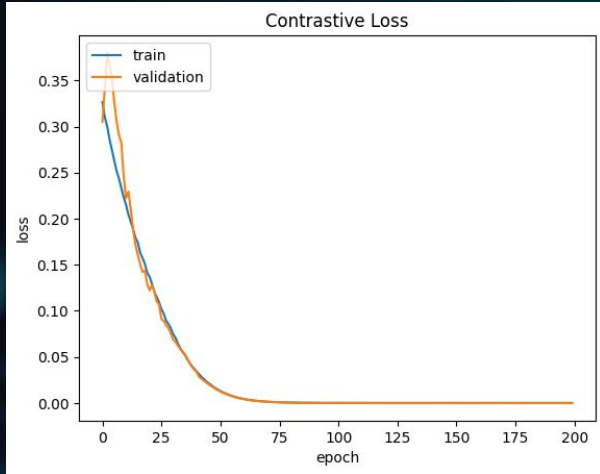
Negative Pairs



Modeling: Siamese Network



Siamese Network: Evaluation



Contrastive Loss Function

- Loss approaching 0

Metrics

Accuracy 86%



Live Demo

Next Steps

Finalize Documentation

**Implement Procedure
for Unknown Users**

Attendance System

Implement model into attendance system





Thank You

Any Questions?